

1/650,486

- 3 -

**Amendments to the Claims**

Please amend Claims 1, 4, 5, and 11. Please add new Claims 15 - 18. The Claim Listing below will replace all prior versions of the claims in the application:

**Claim Listing**

1. (Currently Amended) A method for inspecting a channel using a flexible sensor connected to at least one elastic member containing a pressurizable chamber for maintaining the sensor position proximate to a component surface, said method comprising:
  - inserting the sensor with a deflated chamber into a first ~~end channel~~ opening of the channel;
  - inflating the chamber; and
  - measuring the sensor response as the sensor is moved along the channel and through an end opening of the channel.
2. (Original) The method as claimed in Claim 1 wherein the sensor is an eddy current sensor.
3. (Original) The method as claimed in Claim 1 wherein the sensor is an eddy current sensor array.
4. (Currently Amended) The method as claimed in Claim 1 further comprising moving the sensor out of a second ~~channel~~ opening of the channel.
5. (Currently Amended) The method as claimed in Claim 4 further comprising performing a second scan by deflating the chamber, inserting the sensor into the second ~~channel~~ end opening, inflating the chamber, and measuring the sensor response as the sensor is withdrawn from the channel through the first ~~channel~~ end opening.

1/650,486

- 4 -

6. (Previously Presented) The method as claimed in Claim 5 wherein the sensor is inserted into the channel openings and inflated at a distance less than one-half the channel length.
7. (Original) The method as claimed in Claim 6 wherein said distance is approximately one-third of the channel length.
8. (Previously Presented) The method as claimed in Claim 1 further comprising combining measurement responses from first and second scans in opposite directions.
9. (Original) The method as claimed in Claim 8 wherein the combination is an average of the scans.
10. (Previously Presented) The method as claimed in Claim 1 further comprising measuring sensor position.
11. (Currently Amended) A method for inspecting a channel using at least one flexible sensor connected to an elastic member containing a pressurizable chamber, said method comprising:
  - inserting the sensor into a first end opening of the channel and inflating the chamber;
  - measuring the response as the sensor is moved through a second end ~~channel~~ opening of the channel;
  - deflating the chamber and inserting the sensor through the second end ~~channel~~ opening;
  - inflating the chamber, and measuring the response as the sensor is withdrawn through the first end ~~channel~~ opening.
12. (Original) The method as claimed in Claim 11 wherein the sensor is an eddy current sensor.

1/650,486

- 5 -

13. (Original) The method as claimed in Claim 11 wherein the sensor is an eddy current sensor array.
14. (Original) The method as claimed in Claim 11 wherein the sensor is inserted into the channel openings at a distance approximately one-third of the channel length.
15. (New) The method as claimed in Claim 12 wherein the channel is an engine disk slot and measuring the sensor response involves detecting the presence of a crack.
16. (New) The method as claimed in Claim 12 wherein the channel is a bolt hole.
17. (New) A method for inspecting a channel using a flexible sensor connected to at least one elastic member containing a pressurizable chamber for maintaining the sensor position proximate to a component surface, said method comprising:
  - inserting the sensor with a deflated chamber into a first channel opening;
  - inflating the chamber;
  - measuring the sensor response as the sensor is moved along the channel; and
  - combining measurement responses from first and second scans in opposite directions.
18. (New) The method as claimed in Claim 17 wherein the combination is an average of the scans.